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(54) **BLOOD-BRAIN BARRIER TRANSMIGRATING COMPOUNDS AND USES THEREOF**

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(57) **ABSTRACT**

A brain-penetrating composition of amyloid-ß binding peptide is disclosed. This may be useful in the treatment of Alzheimer's disease, for example as a bifunctional molecule, comprising a blood-brain barrier crossing antibody and an amyloid-ß targeting peptide linked via an Fc fragment that is able to transmigrate across the blood-brain barrier into the brain, and compositions comprising same. Methods of using this composition for treating Alzheimer's disease are disclosed.

Specification includes a Sequence Listing.